

CLAIMS

1. A method comprising:
reading at least a subset of audio content comprising an audio file from optical media removably integrated with an optical drive; and
analyzing at least the read subset of audio content to quantify optical drive read accuracy; and
generating one or more metrics of optical drive read accuracy based, at least in part, on the analysis of the read subset of audio content.
2. A method according to claim 1, wherein reading at least a subset of audio content comprises:
reading a block of audio content; and
iteratively repeating the reading step using different block sizes.
3. A method according to claim 2, wherein analyzing the audio content comprises:
comparing a first bundle of audio content from one sector of a block of audio content to a second bundle of audio content from the one sector of the block;
and
measuring a difference in amplitude between the first bundle and the second bundle to quantify intra-sector misalignment.

4. A method according to claim 3, wherein analyzing the audio content further comprises:

comparing a last bundle of audio content from one sector of a block of audio content to a first bundle of audio content from a subsequent sector of the block of audio content; and

measuring an amplitude difference between the bundles to quantify inter-sector misalignment.

5. A method according to claim 4, wherein the subsequent bundle is immediately adjacent to the first bundle.

6. A method according to claim 4, further comprising:

adjusting one or more operational settings associated with the optical drive based, at least in part, on the intra- and/or inter-sector misalignment.

7. A method according to claim 4, wherein analyzing the audio content further comprises:

comparing data associated with a left channel of a bundle with data associated with a right channel of the bundle; and

measuring an amplitude difference between the left channel and the right channel to quantify a channel offset.

8. A method according to claim 7, further comprising:

adjusting one or more operational settings associated with the optical drive based, at least in part, on the intra-sector misalignment and/or the channel offset.

9. A method according to claim 1, wherein analyzing the audio content further comprises:

comparing a last bundle of audio content from one sector of a block of audio content to a first bundle of audio content from a subsequent sector of the block of audio content; and one or more of:

measuring an amplitude difference between the bundles to quantify inter-sector misalignment.

measuring an amplitude difference between data associated with a left channel of a bundle and data associated with a right channel of the bundle to quantify channel offset.

10. A method according to claim 1, wherein analyzing the audio content comprises:

comparing audio content within and between to adjacent sectors to quantify one or more of intra-sector misalignment, inter-sector misalignment and/or channel offset metrics.

11. A machine readable medium having stored thereon a plurality of executable instructions which, when executed, implement a method according to claim 1.

12. A computer system comprising:
a storage device having stored therein a plurality of executable instructions;
and
an execution unit, coupled to the storage device, to selectively execute at least a subset of the plurality of executable instructions to implement a method according to claim 1.

13. A machine readable medium having stored thereon a plurality of information which, when read by an optical drive, enable a computing system coupled to the optical drive to quantifiably measure one or more performance attributes of the optical drive including read accuracy.

14. A machine readable medium according to claim 13, wherein the plurality of information is an audio file comprised of a non-repeating audio pattern at least twice as large as a non-obvious offset for contiguous reads from the audio file.

15. A machine readable medium according to claim 13, wherein the machine readable medium is optical media.